

PERSONAL FINANCE

Your budget, expenses and personal finances are simply computerized through this business package. Personal Finance will organize, arrange and computerize your home financial expense

INCOME

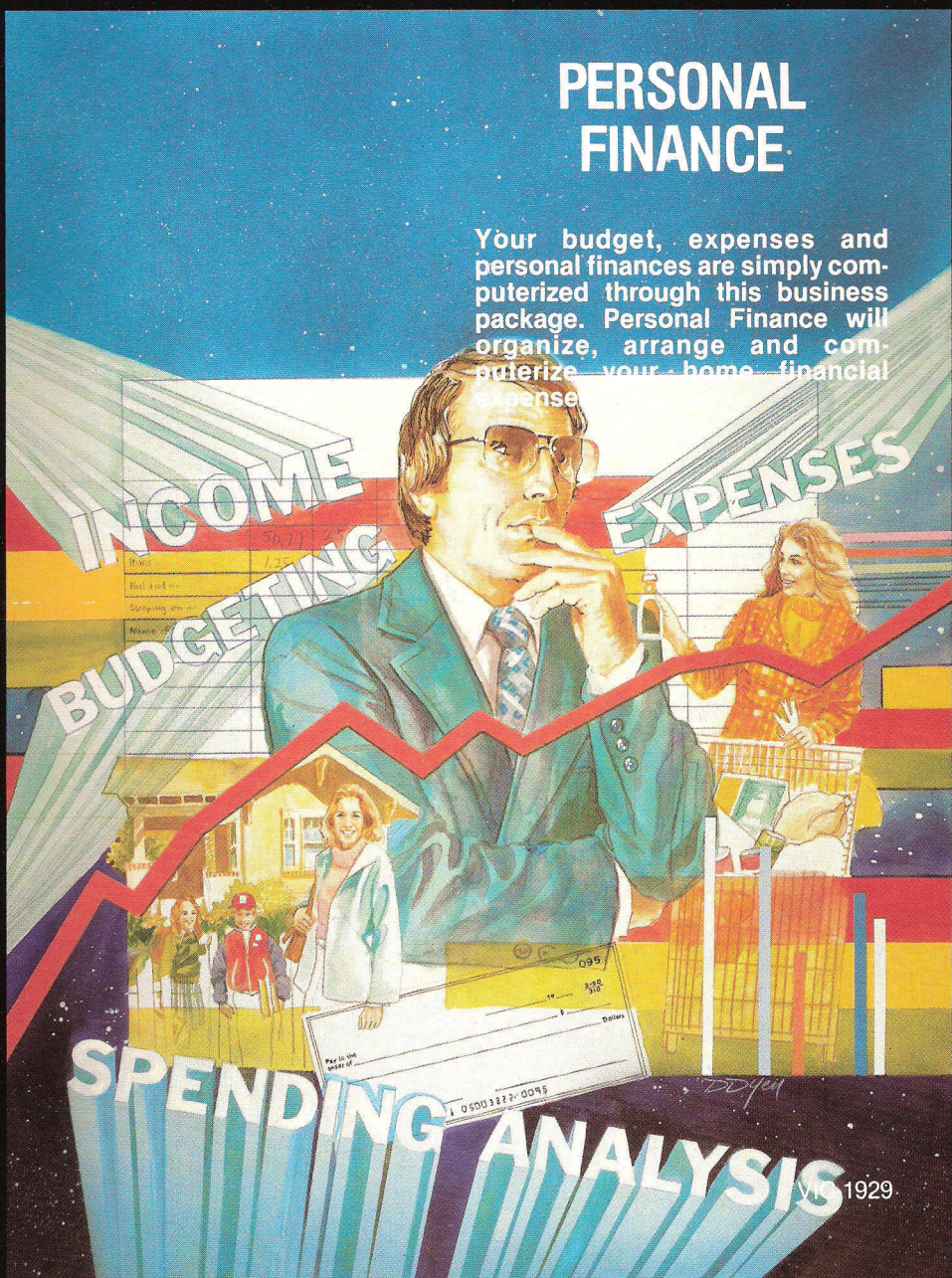
EXPENSES

BUDGETING

SPENDING

ANALYSIS

1929



PERSONAL FINANCE

INTRODUCTION

Congratulations! You've just purchased the most thorough home and personal finance package available for your VIC computer. By using this cartridge regularly and correctly, it will be easier to control your spending and you'll have a much better idea of exactly where your money is going.

I.1 Hardware Needed to Run This Package

The Household Finance programs are entirely contained in the cartridge you received with this manual, but you'll need either a tape cassette unit or a single disk drive on which to store your data. If you're using a tape cassette unit, you'll need extra (blank) cassettes to store each month's income and expense items. We suggest very short (C-10) cassettes so that you can use both sides of the tape.

If you're using a disk unit, you'll need only one diskette for an entire year of expenses and income data.

If you have a VIC printer, you can get various printouts from your data. However, a printer is NOT required and the programs will run just fine if you don't have one.

Household Finance runs on the basic VIC computer with 5K of memory.

I.2 Design Philosophy

Household Finance organizes your income and expenses by giving you 16 general categories under which you record items. You enter income and expenses for a particular month and year. You then record the expenses on either cassette tape or floppy disk. This is the method that most businesses use in their day-to-day accounting.

A separate part of Household Finance organizes and summarizes this data in a useful and understandable way. It presents graphs of expenses, totals for any particular month or for all months, helps you create and maintain a budget, and even gives you total tax-deductible expenses and income.

Of course, you can always go back and modify your expenses if you've made a mistake, or change your budget to be more suitable for your

actual expenses. For each item you enter, the day-of-month, expense/income category, amount, reference, description, and deductible/non-deductible indicator are recorded. (This is explained in more detail in the next chapter.)

I.3 Capacities and Limitations

The income and expense items you'll be entering into the VIC are all held in the VIC's random access memory (RAM). This means that the maximum number of items you can enter are limited by the amount of memory your VIC has. With a 5K VIC, you'll be able to handle as many as 89 different income and expense items for any one month.

If you're using a cassette to store your data, you can use multiple data tapes to increase the number of items per month you can keep track of. This is explained in further detail in Chapter 1. However, if you decide to use multiple cassettes, you must be very careful about labeling your data tapes with the particular month and year.

If you're using a disk to store your data, you will be limited to the number of items (per month) that your memory can hold. If you need to store more items for a particular month, you'll have to increase the memory of your VIC. See your local Commodore dealer about this option.

Finally, if you start out with a cassette-based system and eventually upgrade to a disk, it's easy to change your data from one medium to the other. This is done simply by reading the data from your tapes, and then writing it to the disk, using the options of Household Finance Part 1.

I.4 Using This Manual

This manual is written in a very specific way. It assumes that the Household Finance program is installed and running on your VIC, and that you have 3-4 blank cassettes or a blank diskette available. It will take you through all the options, step by step, with thorough examples. These examples are stored on tape or disk for use by later examples in the manual. If you follow the manual thoroughly, you'll have prepared your own practice data and should understand how to do any of the options.

Although it is helpful to read this manual first, it really isn't necessary. You should prepare to spend anywhere from ½ to 2 hours going through the manual and trying out all the examples the first time. After that, you can start your own data and use the manual as a reference guide.

I.5 Getting Started

To use Household Finance, you'll definitely need the following:

- 3 or 4 blank cassette tapes, or a blank diskette
- blank stick-on labels for the tapes or diskette
- a felt-tipped pen for marking the labels
- this manual
- the Household Finance cartridge installed and running
- your tape cassette or disk unit installed
- (optional) the VIC printer installed

Once you've assembled all these items, you can go on to chapter 1.

CHAPTER ONE

ENTERING DATA

As you've probably seen by now, the Household Finance program will automatically run itself when you turn on the VIC (unless, of course, the cartridge has been improperly installed). The VIC is entirely under the control of Household Finance.

When the VIC is first turned on, you'll get about six seconds of initial display with the screen/border colors changing. This lets you know that the program has just started.

You can restart the program at any time by holding down the RUN/STOP key and then pressing the RESTORE key. This is NOT RECOMMENDED because this procedure completely re-starts the VIC's memory and any data you've already entered will be lost.

So, assuming your cartridge is working properly and you have all the items listed in section 1.5, let's get started.

1.0 The Part 1 Menu

Household Finance is divided into two main parts. The first part, which you are in when you first turn on the VIC, is called Part 1. It allows you to add, change, delete, and review income and expense items. You can also read or write your data to tape or disk, or you can start a new month's list of expenses and income.

When you're in Part 1, the screen color is white and the border color is cyan (a light blue). The VIC's screen will display:

YOU CAN:

1. ADD ITEMS
2. CHANGE/DELETE ITEMS
3. REVIEW ITEMS
4. START NEW MONTH
5. READ DATA TAPE
6. WRITE DATA TAPE
7. PRINT OUT ITEMS

ENTER OPTION:

This display is called a "menu" of options. It is just a list of the things you can do in Part 1. To tell the program what you'd like to do, you must type in a number from 1 to 7 and press the RETURN key.

1.1 Adding Items

When the program starts, there is no data in the VIC's memory. Therefore, the first thing you do is add new income and expense items to the VIC's memory. This is option 1 in the menu.

Before you choose option 1, (by typing a "1" and pressing RETURN), try typing the letter "s." Notice that in **this section only** the program ignores this letter; as a matter of fact, the program will ignore any letter or non-numeric key (other than the STOP key) you type in! The VIC knows that it wants a number rather than a letter, and it refuses to accept anything else.

Next, try typing the numeral "9" and pressing RETURN. Although VIC accepted the 9, there is no option numbered 9 in the menu. Thus the VIC simply ignored it and went back to asking you for your option.

In general, the VIC will refuse to accept invalid or bad data when the Household Finance program is in control. It can't guard against typing errors, of course, but it is almost impossible to enter bad information into the computer.

Now type 1 and press RETURN. Immediately the screen changes to:

ADD ITEMS

1. DAY
2. CATEGORY
3. AMOUNT
4. DEDUCTIBLE
5. REFERENCE
6. DESCRIPTION

and the cursor appears following the word DAY.

Each of these numbered sections must have a specific type of data typed into it:

Name	Type of Data
DAY	A number between 1 and 31. This is the day of the month when the income or expense occurred.
CATEGORY	Type in one of the 15 expense categories or 1 income category, abbreviated as shown below.
AMOUNT	Type in a dollar amount between 0.00 and 99,999.99 This is the amount of the expense or income.
DEDUCTIBLE	Type the letter Y or the letter N (for Yes or No) to indicate whether the item is tax-deductible or not.
REFERENCE	Up to 8 letters or numbers (e.g., CHK 1001 or CASH) can be typed in. You use this section to remind you how the item was paid for.
DESCRIPTION	Up to 19 letters or numbers can be typed in to describe the item you just entered.

In order to help you organize your expenses, the following 15 categories of expenses are allowed:

Category Abbreviation	Category Description
AU	Auto expenses
CL	Clothing and related expenses
ED	Educational expenses

EN	Entertainment (movies, etc.)
FD	Food
GI	Gifts (person and charitable)
HH	Household items
IP	Insurance Premiums
MD	Medical/Dental expenses
MR	Mortgage/Rent payments
SA	Savings deposits
TX	Taxes paid (income, real estate)
UT	Utilities cost
VA	Vacation expenses
ZZ	Miscellaneous (none of the above)

IN Income received

Now that you know what kind of information is expected, you can actually enter some data!

Since the cursor should still be after the DAY field, type a 1 and press RETURN. Immediately the cursor moves to the CATEGORY section; type MR and press RETURN. Now the cursor is located at AMOUNT; type 348 and press RETURN. Notice that the amount you entered has been redisplayed as 348.00, and the cursor moved down to the DEDUCTIBLE section. Just press the RETURN key—the VIC will automatically place an N (for No deductible) in that position. With the cursor in the REFERENCE field, type CHK 1001 and press RETURN. Finally, since the cursor has moved to the DESCRIPTION section and a line comes on the screen to show you how much space you have to describe the item, type in MONTHLY RENT and press RETURN. Notice that you don't have to use the SHIFT key to enter any of this data.

At the bottom of the VIC's screen you now have the message:

ENTER FIELD TO CHANGE
(0=OK, 7=DELETE)

Before we go on, let's review what we just did. We entered the following expense item:

DAY: 1
CATEGORY: MR
AMOUNT: 348.00
DEDUCTIBLE: N

REFERENCE: CHK 1001
DESCRIPTION: MONTHLY RENT

This means that on the first day of the month, we wrote check #1001 in the amount of \$348.00 in payment of our monthly rent (category MR). Since we can't deduct this payment on our income taxes, we entered N for not deductible.

RECOVERING FROM TYPING ERRORS

It's possible that you made an error while typing in one of the sections. If so, your first reaction was probably to use the DEL key on the VIC's keyboard. This key will back up the cursor over the mistake and allow you to reenter the information correctly. This is the only key you can use to fix mistakes while typing.

It's also possible that you pressed the RETURN key before you noticed a typing error. Don't worry—the mistake isn't permanent. As a matter of fact, that's what the display at the bottom of the screen is telling you.

Suppose we really used check #1000 to pay the rent. To correct this mistake, type a 5 and press RETURN. The cursor moves to section 5 and erases the old information, so that you can correct the data. Just type: CHK 1000 and press RETURN. The new data replaces the old data and you've corrected the mistake.

Since we're done entering this item and all the items are OK, type a 0 and press RETURN. (Notice that in this case, you can just press the RETURN key and the VIC will automatically assume you meant to enter a 0). The screen blinks and redisplay the "ADD ITEMS" with all your data disappeared! It has just been placed in the VIC's memory and you are ready to enter another item.

Now enter four more examples like the ones below:

	DATA	DATA	DATA	DATA
DAY	1	2	3	4
CATEGORY	AU	FD	EN	ZZ
AMOUNT	21.22	83.72	8.00	17.95
DEDUCTIBLE	N	N	N	N
REFERENCE	VISA	CASH	CASH	CHK 1001
DESCRIPTION	GAS	FOOD	MOVIE	TOY

EXITING FROM THE ADD OPTION

You've entered a total of 5 records into the VIC's memory. In order to do other things with this data, we have to get back to the menu.

YOU CAN EXIT FROM THE ADD OPTION AT ANY TIME BY PRESSING THE RUN STOP KEY. Even if you're entering a field, pressing the RUN STOP key will instantly end the input and return you to the menu. The record you were adding at the time will NOT have been put into the VIC's memory.

After you've entered the above 4 records, the cursor should be in the day position. Just press the RUN STOP key and the menu reappears.

1.1.1 Other Features of the ADD Option

You can only enter positive numbers in the DAY and AMOUNT fields. Further, if the day entered is 0 or greater than 31, it will be ignored; also, you can't enter decimal points in the day. The amount section won't accept more than five digits to the left of the decimal point or more than two digits to the right (or more than one decimal point).

The deductible section accepts only Y or N; if you enter any other character, it will be automatically converted to an N.

The category can only be one of those 16 categories listed previously. If you enter any other two characters, or just one character, the input is ignored and you'll be prompted to reenter the category.

All the "ADD ITEM" positions have maximum input lengths. You simply can't type past the end of the underline which is displayed when you're putting in information.

Also note, if you've entered all 6 fields in a record and then decide that you don't want to add the record to the VIC's memory, just type 7 and press RETURN when the program asks you to ENTER FIELD TO CHANGE.

Finally, the program will always keep your records in numerical order by the day you've entered. This means that you can enter your records in any order and when you go to CHANGE/DELETE or REVIEW them, you'll find them ordered by day-of-the-month. Furthermore, within each day, if you've entered more than one item, the records are arranged alphabetically by category (except for IN = income which always follows the ZZ = miscellaneous category). Thus you always have your records in natural order and never have to worry about rearranging them.

1.2 Changing or Deleting Items

Many times you will have added an item with the wrong information in one of the fields. It is easy to go back and correct the information by using menu option 2, CHANGE/DELETE ITEM. As an example, we will change the FOOD record we entered in section 1.1.

With the Part 1 menu displayed, type 2 and press RETURN. The VIC displays:

CHANGE/DELETE ITEMS

1. DAY
2. CATEGORY
3. AMOUNT
4. DEDUCTIBLE
5. REFERENCE
6. DESCRIPTION

0=SEARCH, 1=SINGLE
STEP?

In order to change a record, we have to first find the record we want to change. There are two ways to do this: 1) by searching memory for a specific item or sequence of characters within an item, or 2) by stepping through all the items (and displaying them) one-by-one until we find the one we want to change. These options are called SEARCH and SINGLE STEP, respectively.

Let's SINGLE STEP until we find the food item. Type 1 and press RETURN. VIC will display the first record it comes to in memory (in this case, the expense of 21.22 for gasoline) and ask:

CORRECT RECORD (0=NO,
1=YES)?

Since this ISN'T the one we want to change, type 0 and press RETURN (or just press RETURN). The next record (the mortgage expense) is displayed; again, press the RETURN key. Next the food item is displayed. Since this is the one we need to change, type 1 and press RETURN. VIC asks:

ENTER FIELD TO CHANGE
(0=OK, 7=DELETE)

Type 3 (the amount field) and press RETURN. Next type 97.23 and press RETURN. Notice that the VIC keeps asking the above message — you can change any of the fields you want, any number of times, until the record is OK. When you're satisfied, just press the RETURN key and the corrections will be entered in the VIC's memory.

Once you've made a correction, the VIC will stay in the CHANGE/DELETE option, but will go back to asking you whether you want to SEARCH or SINGLE STEP to find the record. Now let's try the search option.

Type 0 and press return. VIC asks:

ENTER FIELD TO SEARCH
(1-6)

The VIC can search any of the six fields for specific contents. We'll search the CATEGORY field for the ZZ (miscellaneous) category. Type 2 and press RETURN. With the cursor at the CATEGORY field, type ZZ and press RETURN. Instantly the VIC displays the record we want (the toy expense) and asks:

CORRECT RECORD (0=NO,
1=YES)?

Type 1 and press RETURN. Again VIC asks:

ENTER FIELD TO CHANGE
(0=OK, 7=DELETE)

Change the DESCRIPTION field to TOY TRAIN. (Type 6, then type in TOY TRAIN, then press RETURN.) Finish this change by typing 0 and pressing RETURN. The corrected record has been placed in memory.

The SINGLE STEP mode always starts at the beginning of the records, and proceeds to the end or until you find the record you want to modify. If you get all the way to the end without finding the record, you'll get the ITEM NOT FOUND message.

1.3 Reviewing Items

Frequently you'll want to review all the items in memory for mistakes or completeness. Option 3 in the menu allows you to do this. We'll review the 5 records we've entered so far.

Be sure you're in the menu by typing RUN STOP. Now type 3 and press RETURN. VIC displays:

REVIEW ITEMS

1. DAY
2. CATEGORY
3. AMOUNT
4. DEDUCTIBLE
5. REFERENCE
6. DESCRIPTION

ENTER STARTING DAY

and the cursor is waiting at the DAY field. Type 1 and press RETURN. (This starts the review at day 1 of the month). VIC immediately displays the first record, and at the bottom of the screen:

HIT A KEY TO CONTINUE

By pressing any key on the keyboard, you can continue to review each successive record until the message:

END OF ITEMS HIT A KEY TO CONTINUE

is displayed at the bottom of the screen. By pressing any key at this time, you'll be asked again to ENTER STARTING DAY.

EXITING FROM THE REVIEW OPTION

You can exit the REVIEW option by pressing the RUN STOP key when asked to ENTER STARTING DAY.

1.3.1 Other Features of the Review Option

EXITING FROM CHANGE/DELETE OPTION

As in the ADD option, the only way to exit from CHANGE/DELETE is to press the RUN STOP key when asked if you wish to SEARCH or SINGLE STEP. So, hit the RUN STOP key and return to the menu.

1.2.1 Other Features of the Change/Delete Option

If you decide to SEARCH for a record, and choose either the

REFERENCE or the DESCRIPTION file to search, you have a feature called "pattern matching" at your disposal. This means that the VIC will match the pattern of characters you type in no matter where the pattern occurs inside that file.

To see how this works, choose the CHANGE/DELETE option from the menu, and then choose to SEARCH for the record. Now choose field #6 (description) and type the letter "O" and press RETURN. If you've entered the data as described above, the first record which will appear on the screen will be the rent payment. This is because the search routine found the letter "O" in the description "MONTHLY RENT." Note also that it skipped the gasoline purchase, since there is no letter O in its description.

Now press the RETURN key to search for another match. It will find the food purchase. Press RETURN again. The expense is displayed. Pressing RETURN another time displays the TOY TRAIN record.

Finally, press RETURN one more time. The message:

ITEM NOT FOUND
HIT A KEY TO CONTINUE

is displayed at the bottom of the screen. This message means that all the records in memory have been searched and either the pattern cannot be matched, or you've rejected all the records where the pattern does match. By pressing any key you'll be asked to SEARCH or SINGLE STEP again.

You can search for ANY sequence of characters, up to the limit of the item's character length. VIC will display any record in which this sequence of characters is matched exactly. As an exercise, figure out how you'd search the REFERENCE field for all the checks you've written (assuming you used the abbreviation CHK for each).

If you start to change a record's field, and suddenly realize that you've chosen the wrong record, you can back out of the correction by pressing the STOP key. None of the changes you've made will be recorded, and the record will be in memory in its original, unmodified state.

You don't always have to start at day 1; you can enter any day number between 1 and 31 inclusive and the review will always start at that day or the nearest day greater than that day. If there aren't any records in memory whose DAY field is greater than the day you put in, you'll get an ITEM NOT FOUND message.

At any time during the REVIEW, when the HIT A KEY TO CONTINUE message is displayed, you can press the RUN STOP key to halt the review and enter a different starting day.

1.4 Starting a New Month

All the records you enter are for one specific month's expenses. However, you don't have to specify which month until you get ready to read or write the data from (or to) tape or disk. When you're done entering records for one month (and have saved those records by writing them to tape or disk), you can clear out the memory and prepare for a new month by choosing this option.

Because this option erases all the data in memory, you'll get the following warning:

WARNING!

**THIS OPTION WILL
ERASE YOUR CURRENT
DATA!**

**ARE YOU SURE YOU WANT
TO DO THIS?**

0=NO, 1=YES?

and the screen's border will change to red. You must type a 1 and press RETURN to go through with this. The memory will be instantly erased and you'll return to the menu.

DON'T try this with your sample data yet.

1.4.1 Other Features of the Start New Month Option

Once the warning message has been displayed, you can only press a 1 and the RETURN key to make this option happen. You can use the STOP key or just press RETURN to exit without erasing your data from memory.

If you have no items in memory you won't get any warning because there is nothing to erase. The menu will just flash briefly.

1.5 Writing Data to Tape or Disk

Now that we have five records in memory, we will record them permanently on cassette tape for future reference. Choose option 6 in the menu and press RETURN. The screen displays:

WRITE DATA TAPE

MONTH:
YEAR: 19

The cursor is at the MONTH field; type JAN and press RETURN. The cursor will appear immediately following the digits 19; type 82 and press RETURN. At the bottom of the screen the VIC displays:

OK (0=NO, 1=YES)?

Type 1 and press RETURN. Another message appears:

PLACE MONTH'S
IN DISK/CASSETTE UNIT

HIT A KEY TO CONTINUE

At this time you should insert a blank (preferably fresh) tape into the cassette unit and rewind it all the way to the beginning. If you're using a disk, simply insert the disk as described in your Disk Drive Reference Manual. When this is done, press any key and the message:

PRESS RECORD AND PLAY
ON TAPE

will appear on the screen for cassette. Press the RECORD Key, and while holding the RECORD key down press the PLAY key on your cassette unit. The message OK will appear, and about six seconds later the message WRITING DATA will appear. The entire process of writing the data to tape will take about 20-25 seconds for the 5 records we've entered. When this is done, the menu will be redisplayed. If you're using a disk, as soon as you type 1 and RETURN for OK (0=NO, 1=YES), the writing data message appears and your data is added to your disk.

1.5.1 Other Features of the WRITE DATA TAPE Option

It is good practice to write a data tape for a particular month if you've added a lot of new items, or made substantial changes since you last saved your data. Since the records are held in the VIC's memory, any mishap which causes the VIC to lose power will erase its memory and thus you'll lose your data.

You can save the updated month's data directly over the old data (i.e., you can use the same tape over again) by simply rewinding the tape all the way to the beginning before using it. If you've previously read in a data tape, the program will remember the month and year and display it when it comes time to write the data. If you're using a disk, you don't have to keep separate disks for each month, but it's a good idea to use a 2nd disk for a copy as a back-up.

The program will only accept the following month names: JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC. Any other abbreviations will be rejected.

If you want to exit the READ/WRITE DATA option before actually writing on to the tape or disk, press the STOP key when the program asks you to enter the month, or when it asks you OK (0=NO, 1=YES).

WARNING!: Once you've received the message PRESS RECORD AND PLAY ON TAPE, you cannot back out of this option. You MUST go ahead and write a tape. If you absolutely do not wish to write any data, just remove the tape and press the RECORD and PLAY keys anyway. The program will think it is writing data and, when it is finished, will return to the menu.

For disk, once you type 1 for YES, the VIC will try to process the information onto the disk if you don't have a disk in the drive the message 74, DRIVE NOT READY, 00, 00 TAPE/DISK I/O ERROR appears.

Writing a data tape does not affect any of the data in the VIC's memory. When you're done, BE SURE TO LABEL THE TAPE WITH THE CORRECT MONTH AND YEAR! For example, you would label the tape we just wrote JAN82 DATA TAPE using the blank cassette label and a felt-tipped pen.

1.6 Reading a Data Tape or Disk

Now that we have our items permanently recorded on tape, we can read them back in at any time in the future. Choose option 5 in the menu and press RETURN. Notice that you get the red warning screen, as described in section 1.4. This is because reading data will always write over the VIC's memory and thus destroy any records you have in there currently.

Type 1 and press RETURN. The screen now displays:

READ DATA TAPE

MONTH:

YEAR: 19

The cursor is at MONTH. Type JAN and press RETURN. The cursor moves to the year field. Type 82 and press RETURN. At the bottom of the screen the VIC displays:

OK (0=NO, 1=YES)?

Type 1 and press RETURN. Another message appears:

PLACE MONTH'S TAPE
IN CASSETTE UNIT

HIT A KEY TO CONTINUE

At this time you should insert your JAN82 data tape into the cassette unit and rewind it all the way to the beginning. If you don't have a JAN82 tape, then you can press the STOP key to exit from the READ option.

Assuming you've placed your JAN82 tape in the cassette unit and rewound it, hit any key (other than the STOP key) on the VIC's keyboard. The message:

PRESS PLAY ON TAPE

appears. Press the PLAY button. The message SEARCHING FOR JAN82 will appear, and about 15 seconds later the message FOUND JAN82 will appear. Next, the message READING DATA is displayed. When the tape has been read, the menu will be redisplayed on the screen.

If you're using a disk, only the message **READING DATA** appears under the **MONTH & YEAR** in the **READ DATA** section.

WARNING!: Once the message **PRESS PLAY ON TAPE** has appeared, you cannot back out of the **READ** option. If you do not have the correct tape, you will have to restart the program entirely by either turning the **VIC** off and back on again, or holding down the **STOP** key and pressing the **RESTORE** key. In either case, any records in the **VIC's** memory will be lost.

1.6.1 Other Features of the READ DATA Option

You should notice that the procedure for entering the data for **MONTH** and **YEAR** is exactly the same as for the **WRITE DATA** option. Similarly, acceptable **MONTH** names are limited to those listed in section 1.6.1.

1.7 Using the VIC Printer to PRINT OUT ITEMS

If you have a **VIC** printer, you can use it at any time to get a listing of all the items in the **VIC's** memory. Be sure it is hooked up and turned on (and it isn't in the self-test mode!).

With the menu displayed, type **7** and press **RETURN**. The screen tells you:

PRINT ITEMS

**BE SURE PRINTER IS
HOOKED UP, TURNED ON
AND PAPER IS ALIGNED**

HIT A KEY TO CONTINUE

Assuming all these conditions are met, you will get a printout. If it's not hooked up properly, you get the red error message: **PRINTER NOT HOOKED UP, HIT A KEY TO CONTINUE**. Typing any key will take you back to the menu.

1.7.1 Other Features of the PRINT OUT ITEMS Option

If you have more than 56 records in memory, they won't all fit on one printed page. The program recognizes this and will automatically skip

over the perforation at the bottom of the page, type a new heading on the top of the next page, and keep on printing until all the items have been listed.

If you need to stop the listing at any time, simply turn off the printer. You'll get the message:

PRINTER NOT HOOKED UP
HIT A KEY TO CONTINUE

1.8 **Part 1 Error Messages**

If you follow directions closely, you'll probably never run into any problems with your Household Finance programs and data. However, if your dog chews up your data tapes, or you happen to drop your printer on the floor, the damage caused to these items may in turn create problems in the Household Finance programs.

The programs are designed to guard against these types of errors through the use of warning messages. The table below lists possible Part 1 error messages, probable causes, and suggested recovery procedures.

ERROR MESSAGE	PROBABLE CAUSE AND SUGGESTED RECOVERY PROCEDURE
NO DATA ON FILE	You'll get this error message in options 2, 3, 6 and 7 if there are no records in the VIC's memory. This problem will vanish once some records have been entered.
TAPE/DISK I/O ERROR!	This message can occur when either reading or writing data to tape or disk ("I/O" is an abbreviation for "Input/Output"). If it happens during a read, the program will return to the menu and you won't have any records in memory. You can try and recover by attempting to read the tape or disk again, but if you keep getting this error, you probably have a bad data tape or disk. If this error occurs during a WRITE, just choose the WRITE DATA option and re-write the data.

ITEM NOT FOUND

See section 1.2.1

PRINTER NOT
HOOKED UP

See section 1.7.1. To recover, try turning your printer off and then on again. Check the cable to be sure it is hooked up at both ends correctly.

MEMORY FULL

If this message occurs during the ADD option it means you've run out of memory. You can't add any more records, and should write a data tape or disk. If you're using a tape to store your data, you can create a second data tape for the month. If you're using a diskette, you'll need more memory to store more items.

This message could also occur during a tape or disk read. It means that either 1) you haven't plugged in your VIC add-on memory, or 2) your VIC's memory is faulty. If the first case, just plug in the memory and start over. If the second case, you'll need to see your local VIC repairman.

CHAPTER TWO

ANALYZING DATA

Part 2 of Household Finance uses the data tapes (or disk) you created in Part 1 to produce useful summaries and graphs. At this point you should have at least one data tape (the JAN82 sample data containing five records) which we created in Part 1.

It's also assumed that you've become reasonably comfortable with the workings of both the VIC keyboard and the Household Finance Part 1 options. In order to be as consistent as possible, many of the display screens and procedures look very similar to the Part 1 options. This will make it easy for you to learn all the capabilities of Part 2 without having to learn a lot of new information.

2.0 Entering the Part 2 Menu

As in Part 1, all the available Part 2 options are displayed by a menu. To display this menu, just press the RUN STOP key when asked to ENTER OPTION: in Part 1. Notice that, if you have any records in memory, you'll get the red warning border as explained in section 1.4. NOTE: Remove your disk or tape before going from the warning screen to the yellow border or all your data will be lost!! This is because Part 2 must use the same VIC memory, but for different data storage. Be sure your data has been written to tape or disk before entering Part 2. Enter part 2 by typing 8 in the enter option space at the bottom of part 1's menu. Then type 1 & RETURN.

Once you've entered Part 2, the border color will change to yellow, and you'll get the following menu:

YOU CAN:

- 1 READ DATA TAPE
- 2 DISPLAY EXPENSES
- 3 SUMMARIZE A CATEGORY
- 4 CREATE/MODIFY BUDGET
- 5 READ BUDGET TAPE
- 6 WRITE BUDGET TAPE
- 7 ACTUAL VS BUDGETED
- 8 DISPLAY DEDUCTIBLES

ENTER OPTION:

In Part 2, you'll be summarizing all the records for any (and all) months you've made data tapes for. Although you won't be able to see and manipulate the individual records you wrote, you will be able to input as many as 12 month's records and see each separate month's expenses and income.

2.1 Reading a Data Tape or Disk

Since we already have made at least one data tape or disk in Part 1, we'll use this option to read those records in Part 2. This procedure is **EXACTLY THE SAME** as the **READ DATA TAPE** described in section 1.6. As a matter of fact, the only way you'll be able to tell you're in Part 2 is that the border color is yellow!

Since the procedures are exactly the same, we'll let you refer to section 1.6 to read your data tape.

To **EXIT** from the **READ DATA** option, press the **STOP** key when the cursor is at the **MONTH** field.

2.1.1 Other Features of Part 2 READ DATA Option

Eventually you will have created 12 monthly data tapes or disks. All of these can be read into Part 2, and the totals for each month will be retained separately in the VIC's memory. Thus, you won't get the red warning border when you read in another month's data, as you did in Part 1.

You'll notice in Part 2 that when the data tape or disk has been read, the program doesn't return to the menu. Rather, it goes back to asking you for another month and year. This is a convenience if you have more than one month's worth of data to read in.

However, in Part 2 it is **EXTREMELY IMPORTANT** that you have the month's name and year entered correctly before pressing the play button on the tape or inserting your disk. The warning in section 1.6.1 applies here as well: if you start to read data, and you do not have that particular month's data available, you'll have to restart the program from the beginning and all the data you've entered so far is lost!

2.2 Displaying Expenses

As you enter each month's data, the total for each expense and income category is totaled and placed into the VIC's memory. Part 2 keeps

13 separate totals: one for each month's data, and one for the grand total of all the months you've entered. You can review these total expenses for any month (or for the grand total) at any time by using the **DISPLAY EXPENSES** option.

Assuming you've read in the sample JAN82 data tape we wrote in Part 1, choose option 2 in the menu. The screen displays:

DISPLAY EXPENSES

MONTH:

**0=ALL MONTHS, 1=ONE
MONTH?**

You are being asked if you'd like to see the expenses for all the data you've read in so far, or just a particular month's. Type 1 and press RETURN. The cursor moves to the **MONTH** field; type JAN and press RETURN. Notice that the year is not required. Immediately, a screen full of information appears.

At the bottom of the screen the message:

**SPENDING PROFILE (0=NO
1=YES)?**

appears. Type 1 and press RETURN. A colorful graphic presentation of your spending appears.

On the left of the screen, the category abbreviation is listed. Immediately next to it, the percentage of your total spending is listed. Finally, a bar graph illustrating the relative spending percentage of each category is displayed. When you're done examining this graph, press any key and you'll return to the initial screen displayed above.

To EXIT from this option, press the STOP key when asked **0=ALL MONTHS, 1=ONE MONTH?**

2.2.1 Other Features of the DISPLAY EXPENSES Option

As you've already seen, in Part 1, the category abbreviations are expanded to make them more readable (when space on the screen permits).

The spending profile has a feature called "auto-scaling." This means that the bar graph for your maximum expense category will always stretch the full width of the VIC screen. This is true regardless of whether the percentage is 10% or 100%. This feature makes it very easy to spot the maximum expenses in each month.

To get the expenses and a spending profile for the total of all months, type a 0 (instead of a 1) when asked 0=ALL MONTHS, 1=ONE MONTH? You can use this feature to get year-to-date totals. Just read in each month's data in calendar sequence (i.e., JAN, FEB, MAR, etc.) and pause to display the TOTAL expenses after you read in each month's data.

You may have noticed that the Part 2 menu doesn't have any PRINT options, as Part 1 did. However, if you have a VIC printer you'll still be able to get very useful printouts of your data.

This is done by pressing special function key #1 (abbreviated F1 in this manual) on the VIC's keyboard. This is the key in the upper rightmost portion of the VIC keyboard. Screen to printer transfers are available in Part 2 only at certain times (basically, when the screen has useful information on it). If you press the F1 key at a time when it isn't activated, it is treated as any other key on the keyboard.

You can get a screen listing on your printer of both the expense display and the spending profile. For a screen listing of the expenses, press the F1 key when the program is asking SPENDING PROFILE (0=NO, 1=YES)? The bottom two lines will blank, and the screen information will be transferred (in double-width letters) to the printer. When the printer is finished, you are again asked if you want a spending profile.

To get a screen listing of the spending profile, press the F1 key when the message HIT A KEY TO CONTINUE appears at the bottom of the screen.

If the printer isn't hooked up properly, you'll get the PRINTER NOT HOOKED UP message described in section 1.7.1. Also, if you want to stop the printout, just turn off the printer while it is printing.

Although the top line of each screen is usually in reversed letters, the printer will not reverse this line. This makes the printout easier to read, since the top line is the description of the rest of the screen.

2.3 Summarizing an Expense or Income Category

As you accumulate data over a period of months, you'll probably want to see the amount you've spent during those months for one category only. This is the SUMMARIZE CATEGORY option in the menu. It will automatically search through memory for all those months you've entered, and display the total for each month in the category you selected.

To try this option, type 3 and press RETURN. The screen shows:

SUMMARIZE CATEGORY

AU	AUTO
CL	CLOTHES
ED	EDUC.
EN	ENTERT.
FD	FOOD
GI	GIFTS
HH	HOUSEHOLD
IP	INS PREM
MD	MED/DENT
MR	MTG/RENT
SA	SAVINGS
TX	TAXES
UT	UTILS.
VA	VACATION
ZZ	MISC.

WHICH CATEGORY?

The cursor is waiting after the WHICH CATEGORY? line for you to enter one of the two character codes listed above. Type AU and press RETURN; the screen changes to:

SUMMARIZE CATEGORY AU

JAN 21.22

TOTAL 21.22

HIT A KEY TO CONTINUE

If you entered more than just JAN's data, you'll get a display for each month you've entered, in addition to the total for all months.

To exit from the SUMMARIZE CATEGORY option, press the RUN STOP key when asked WHICH CATEGORY?

2.3.1 Other Features of the SUMMARIZE CATEGORY Option

You can get a screen to printer listings of the totals by pressing the F1 key when you're asked HIT A KEY TO CONTINUE. This is the only screen to printer list available in this option.

2.4 Budgeting

Experts will tell you that the best way to cut down on your expenses is to draw up a good, reasonable budget and adhere to it rigorously. Household Finance enables you to do this by providing three menu options: CREATE/MODIFY BUDGET, READ BUDGET, and WRITE BUDGET. As the titles imply, these options allow you to create a new budget (or modify your existing one), save this budget on tape, and read the budget back in from tape.

2.4.1 Creating and Modifying a Budget

Assuming you're in the Part 2 menu, type 4 and press RETURN. The screen displays:

WHICH CATEGORY?

Since you haven't previously entered a budget, the TOTAL is 00.00, as are the budgeted amounts for all the other categories.

The next step is to enter, one-by-one, your personal budgeted amount for each category. For example, type AU and press RETURN; the cursor moves to the AU field and is waiting for an amount. Type 97 and press RETURN. Immediately the number is displayed as 97.00 and you're back to being asked WHICH CATEGORY?

Your budgeted amounts must be in whole dollars—digits to the right of the decimal point aren't allowed. If you try to type a decimal point it will be ignored.

You'll also notice that after each category's budget is entered, the TOTAL changes instantly to reflect the new budget total. You can use this feature to interactively create the most appropriate budget for your finances. In order to familiarize yourself with this option, try creating a budget of your own.

You can get a screen to printer listing of your budget any time the message WHICH CATEGORY? is displayed by pressing the F1 key.

To exit from this option, press the STOP key when asked WHICH CATEGORY? Your budget will be retained in the VIC's memory.

2.4.2 Saving Your Budget

Once you're satisfied with the budget you've created, you can save it on tape or disk using option 5 in the menu. Do this using the budget we just created above.

Type 6 and press RETURN. The screen changes to:

WRITE BUDGET TAPE

**PLACE BUDGET TAPE
IN CASSETTE UNIT**

PRESS A KEY TO CONTINUE

You should prepare a blank (preferably new) cassette tape or diskette and label it (using your felt-tipped pen) BUDGET TAPE. Place it in the cassette unit and rewind it fully. Now press any key on the keyboard. The message:

**PRESS RECORD AND PLAY
ON TAPE**

appears. Press the record and play buttons on the cassette unit. The message OK appears, followed about 15 seconds later by the message WRITING BUDGET. When the budget has been written, the Part 2 menu display returns. Your budget has been permanently recorded on tape or disk and can be read back into Part 2 at any time in the future. For disk simply hit any key after inserting the disk and the WRITE BUDGET message will appear.

Your budget is still in the VIC's memory, of course, and can be modified as described in section 2.4.1, above. If you want to save your modified version on tape or disk, you can write over your old version on the same tape or disk. Just be sure to rewind the tape fully before pressing the RECORD and PLAY buttons. You don't have to worry about rewinding the disk.

Also, the warning mentioned in section 1.5.1 also applies to writing a budget: once you've gotten the PRESS RECORD AND PLAY ON TAPE

message, you **MUST** go through with the writing of the tape. There is no way to get out of it without starting the program all over again. For disk once the **WRITE BUDGET** message appears the only way not to have data written is to remove the disk at the point the **TAPE/DISK I/O ERROR!** message appears.

2.4.2 Reading a Budget

The entire reason for writing your budget to tape or disk is so you won't have to remember and reenter it every time you run Part 2. Once you've recorded your budget, you can read it back into the VIC's memory using option 5 in the menu.

If you've written the budget tape/disk we've suggested, we'll read it back into memory at this time. If you haven't written a budget tape/disk, **DON'T ATTEMPT** to read one in, since you don't have anything to read!

From the menu, type 5 and press RETURN. The screen displays:

READ BUDGET TAPE

**PLACE BUDGET TAPE
IN CASSETTE UNIT**

PRESS A KEY TO CONTINUE

At this point you can exit from the **READ BUDGET TAPE** option by pressing the STOP Key; any other key will continue with this option.

Insert your budget tape in the cassette unit and rewind it fully. Hit any key on the keyboard, and the message:

PRESS PLAY ON TAPE

appears. Press the play key on the cassette unit; the message **SEARCHING FOR BUDGE** appears. (The Household Finance program refers to the budget tape as **BUDGE**.) After about 15 seconds, the message **FOUND BUDGE** appears, and almost instantaneously the menu will be redisplayed. This means that the budget has been successfully read back into the VIC's memory. For disk hit any key after **READ BUDGET** appears.

The warning section 1.6.1 also applies to reading budget tapes: once you've gotten the **PRESS PLAY ON TAPE** message, you'll have to go

through with the reading of the budget tape. If you don't have a budget tape, you'll have to reset the VIC and start the program all over again.

2.5 Comparing Actual Expenses to Budget

Now we're going to put the budget figures to work. At this point you should have at least one month's expense items (JAN82) in memory, and a workable budget. From the Part 2 menu, type 7 and press RETURN. The screen shows:

ACTUAL VS BUDGETED

MONTH:

0=ALL MONTHS, 1=ONE
MONTH?

Type 1 and press RETURN; the cursor moves to the month field. Type JAN and press RETURN. Immediately you'll get a graphic display of the first four categories.

A sample display is shown below; these are not the figures you'll get with your sample JAN data, because we've used a more representative month (in our case, OCT) with more actual data. Notice on the screen that the word ACTUAL is displayed in red, and the word BUDGETED is displayed in blue. This is to indicate that the red bar graph on the screen is your actual spending, and the blue bar graph is the budget.

The category code is displayed, along with a percentage. This is the percentage of the actual spending compared to the budget. If this figure is less than 100%, you've spent less (in that category) than you budgeted; if this figure is greater than 100%, you've exceeded your budget.

There is a great deal of information to be displayed for the 15 expense categories, and it takes more than one screen to do so. Thus at the bottom of the screen the message HIT A KEY TO CONTINUE is telling you to press any key on the keyboard to see the next four expense categories.

However, if you have your VIC 1515 printer hooked up, you can get a screen dump at this time by pressing the F1 key. Also, if you press the STOP key, the actuals vs. budgeted comparison will stop and you'll be asked 0=ALL MONTHS, 1=ONE MONTH as described at the beginning of this section.

To exit from this option, press the STOP key when asked 0=ALL MONTHS, 1=ONE MONTH?

2.5.1 Other Features of the ACTUALS VS BUDGETED Option

If some of your budgeted categories are 0.00, the bar graph will display the words NOT BUDGETED in place of the actual bar graph. This lets you know that you haven't entered any budget amount for this category.

If you have no budget whatsoever entered, the message NO BUDGET ENTERED will be displayed and you'll be returned to the menu.

You can also compare your total spending (over all months you've entered) to the total budget for those months. Suppose you've read in your data tapes for JAN82, FEB82, MAR82, and APR82. If you choose to compare actuals to budgeted for ALL MONTHS, your budget figures will be multiplied by 4 (in this case) before the graphs and percentages are figured.

This latter feature is very useful in seeing how your spending smooths out over the course of the year. For example, if you take a vacation only once or twice a year, your expenses for those months will be disproportionately larger—you'll be significantly over budget for those months. However, if you are budgeting a certain amount for vacation, your TOTAL expenses in that category should be close to your TOTAL budgeted expenses.

If you try to compare budgeted vs. actuals for a month you have no expenses entered, you'll get a NO DATA ON FILE message.

2.6 Displaying Your Deductibles

In Part 1 you were able to indicate whether a particular expense or income item was tax-deductible. When you read that data in Part 2, a separate total of all deductible amounts in each category is maintained. This total is available at any time by choosing option 8 in the menu.

Since we haven't entered any deductible expenses in our sample JAN82 data, we've shown below a typical screen listing of the deductibles summary. Note that only total deductibles in each category are available, not each individual month's deductibles.

It doesn't do any harm to display the deductibles even if you haven't any—the category amounts will simply be all 0.00.

You can get a screen listing of your deductibles on your printer by pressing the F1 key when the message HIT A KEY TO CONTINUE appears on the bottom of the screen.

2.7 Returning to Part 1

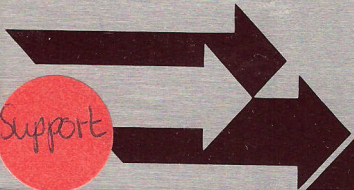
Any time you're in the Part 2 menu, you can return to Part 1 by pressing the STOP key. If you have any data at all in memory (either budget data or monthly expense data), you'll get the red warning border to indicate that you'll lose your data if you proceed with that option.

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